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Two new records of *Phyllachora* (*Phyllachorales*) from China

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Abstract— Two new Chinese records, *Phyllachora africana* on *Eremopogon delavayi* and *Phyllachora vulgata* on *Muhlenbergia racemosa* are reported.

Key words—*Sordariomycetidae*, tar spot, taxonomy

Introduction

The first report of *Phyllachora* in China was by Kalchbrenner & Thümen (1881), who listed *Phyllachora angelicae* (Fr.) Fuckel collected from Inner Mongolia. Sydow & Sydow (1920) first described a new species, *Phyllachora cantonensis* Syd. & P. Syd., from China. Sawada (1919, 1928, 1943, 1944) reported some *Phyllachora* species from Taiwan. Tai (1979) provided the first comprehensive account of the *Phyllachora* in China. Luo (1984) made a detailed study of *Phyllachora* inhabitating *Poaceae*. There have been several recent reports of *Phyllachora* in China (Zhang et al 2003, 2005; Liu & Guo 2006a, b, 2007).

Phyllachora on *Eremopogon*

A specimen of *Phyllachora* was collected from Tengchong on *Eremopogon delavayi* (Hack.) A. Camus [syn. *Andropogon delavayi* Hack.; *Schizachyrium delavayi* (Hack.) Bor], which is distributed across southwestern China. To date, *Phyllachora* has not been reported on *Eremopogon* in China. There are 8 species of *Phyllachora* on *Andropogon* and 3 species on *Schizachyrium* worldwide (Parbery 1967). The specimen that we collected was identified as *Phyllachora africana* based on the similar size and shape of ascospores as given by Parbery (1971). The type of *Phyllachora africana* was reported on *Echinochloa*. Both *Eremopogon* and *Echinochloa* belong to the subfamily *Panicoideae*.

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Phyllachora africana Parbery, Aust. J. Bot. 19: 211, 1971. Figs. 1–2

Leaf spot: blackened regions sparse, ellipsoidal, slightly raising the host surface, 0.3–1.7 × 0.3–0.8 mm, multiloculate, the ostiole inconspicuous, blackened regions can be visible from both sides of the leaves.

Anamorph: not seen.

Teleomorph: ascomata 170–425 × 100–175 μm, epigenous, immersed in the mesophyll layer of the leaves, ellipsoidal, with flattened base, with neck extending through the host epidermis and cuticle to the surface, asci rising from the basal and lateral wall of the ascoma. Upper wall up to 55 μm thick, composed of epidermal cells which are occluded by melanized material. Lower wall up to 15 μm thick. Lateral wall up to 20 μm thick, composed of thin-walled cells. Paraphyses up to 2 μm wide, thin-walled, gradually tapering, not branched, not septate. Asci 100–140 × 9–12.5 μm, with apical ring, 8-spored, cylindric, short pedunculate, thin-walled at maturity, unitunicate. Ascospores uniseriate, 10–17 × 5–9 μm, ovoid, one-celled, hyaline, thin-walled, smooth.

Specimens examined–On living leaves of *Eremopogon delavayi* (*Poaceae*), Yunnan: Tengchong, alt. 1750 m, 20 IX 2005, N. Liu, Z.Y. Li & L.Guo 141, HMAS 171988.

Phyllachora on *Muhlenbergia*

A specimen of *Phyllachora* on *Muhlenbergia racemosa* (Michx.) Britton et al. collected from Jiangsu Province in 1903 was deposited in HMAS as *Phyllachora graminis* (Pers.) Fuckel. We found that it had been wrongly identified and redetermined it as *Phyllachora vulgata*, which to date is the only species reported on *Muhlenbergia* worldwide (Parbery 1967).

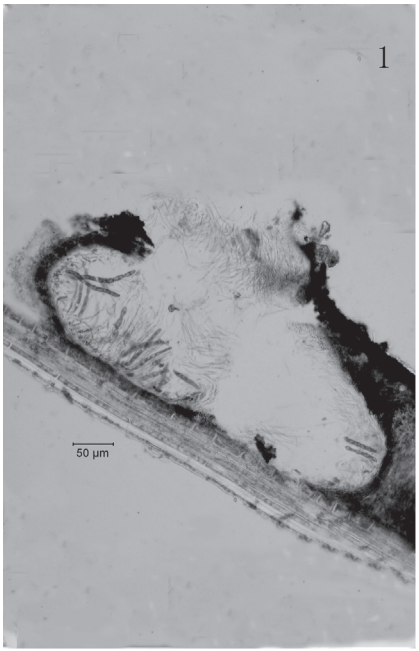
Phyllachora vulgata Theiss. & Syd., Ann. Mycol. 13: 450, 1915. Figs. 3–4

Leaf spot: blackened regions sparse, long ellipsoidal, slightly rising from the leaf surface, 0.3–1.5 × 0.2–0.8 mm, shining black, multi-loculated, the ostiole inconspicuous, blackened regions can be seen from both sides of leaves.

Anamorph: not seen.

Teleomorph: ascomata 150–300 × 80–205 μm, immersed in the mesophyll layer of the leaves, subglobose, with neck extending through the host epidermis and cuticle to the surface, asci rising from the basal and lateral wall of the ascoma. Upper wall up to 50 μm thick. Lower wall up to 40 μm thick. Lateral wall up to 20 μm thick, composed of thin-walled cells. Asci 58–96 × 5–10 μm, 8-spored, clavate, obtuse at apex, short pedunculate, thin walled at maturity,

Figs. 1–2. *Phyllachora africana*. Fig. 1. Section through immersed ascoma. Fig. 2. Ascus and ascospores Figs. 3–4. *Phyllachora vulgata*. Fig. 3. Section through immersed ascoma. Fig. 4. Ascus and ascospores.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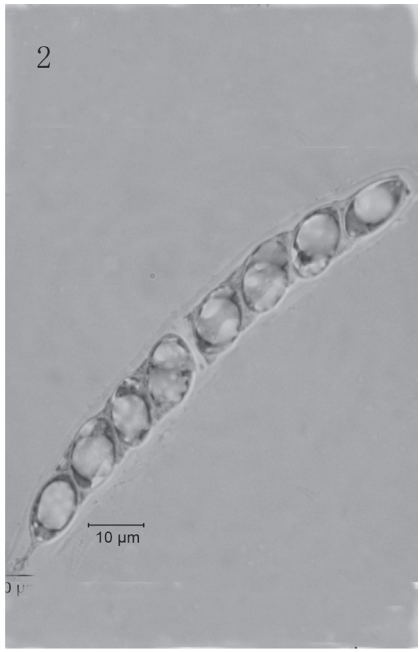
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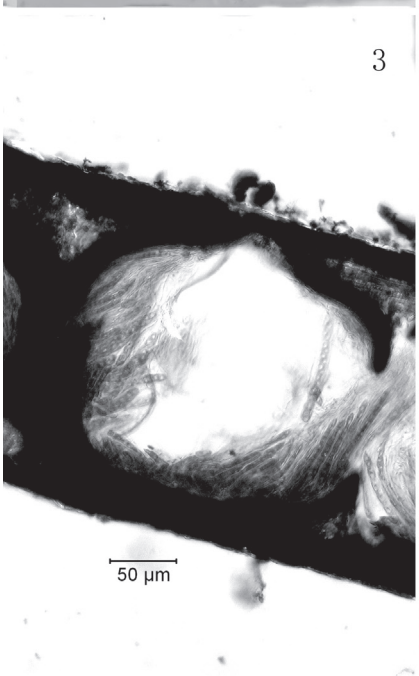
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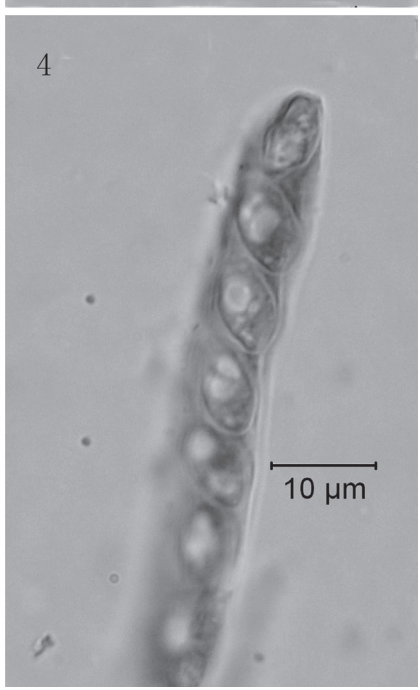
4
10 µm

unitunicate. Ascospores uniseriate, 7–13 × 5–6 μm, ellipsoid or ovoid, one-celled, hyaline, smooth, without a gelatinous sheath.

Specimens examined–on living leaves of *Muhlenbergia racemosa* (*Poaceae*), Jiangsu: Nanjing, 19 IX 1903, HMAS 6828.

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